

## WHAT IS CLAIMED IS:

1. A method of manufacturing a photonic crystal comprising the steps of:

exposing two or more silver halide particle layers that contain silver halide particles which have different spectral sensitivity characteristics for each of said two or more silver halide particle layers to light having wavelengths corresponding to said different spectral sensitivity characteristics, respectively; and

developing the thus exposed two or more silver halide particle layers to form a periodic structure with an aggregate of developed silver in said exposed two or more silver halide particle layers.

2. The method according to claim 1, wherein said different spectral sensitivity characteristics of said silver halide particles is one kind of characteristics inherently possessed by said silver halide particles and characteristics obtained by providing said silver halide particles with sensitizing actions by means of spectral sensitization or chemical sensitization.

3. The method according to claim 1, wherein said

different spectral sensitivity characteristics of said silver halide particles is characteristics realized by a combination with an filter taking into consideration spectral absorption characteristics and one kind of characteristics inherently possessed by said silver halide particles and characteristics obtained by providing said silver halide particles with sensitizing actions by means of spectral sensitization or chemical sensitization.

4. The method according to claim 3, wherein said filter is arranged on a silver halide particle layer having a target absorption wavelength in said two or more silver halide particle layers.

5. The method according to claim 3, wherein a material having an intermediate layer which contains no silver halide particles and which is formed between two of said two or more silver halide particle layers is used and said intermediate layer serve as said filter.

6. The method according to claim 1, wherein a material having an intermediate layer which contains no silver halide particles and which is formed between two of said two or more silver halide particle layers is used.

7. The method according to claim 1, wherein said light is light of a short wavelength of 460 nm or less.

8. The method according to claim 1, wherein said light is light of a short wavelength of 440 nm or less.

9. The method according to claim 1, wherein said light is light of a short wavelength of 400 nm or less.